

Initial Application Part I

Received: 07/30/2019

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

RECEIVED: 07/30/2019	REVIEWER:	TYPE: SWD	APP NO: pMAM1921150591
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: 3Bear Field Services, LLC _____ OGRID Number: 372603 _____
 Well Name: Bear Paw SWD No. 1 _____ API: _____
 Pool: SWD: SWD; Devonian-Silurian _____ Pool Code: 97869 _____

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL

☐ NSP (PROJECT AREA)

☐ NSP (PRORATION UNIT)

☐ SD **SWD-2217**

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC

☐ CTB

☐ PLC

☐ PC

☐ OLS

☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX

☐ PMX

☒ SWD

☐ IPI

☐ EOR

☐ PPR

2) **NOTIFICATION REQUIRED TO:** Check those which apply.

A. ☒ Offset operators or lease holders

B. ☐ Royalty, overriding royalty owners, revenue owners

C. ☒ Application requires published notice

D. ☐ Notification and/or concurrent approval by SLO

E. ☐ Notification and/or concurrent approval by BLM

F. ☒ Surface owner

G. ☒ For all of the above, proof of notification or publication is attached, and/or,

H. ☐ No notice required

FOR OCD ONLY

☐

Notice Complete

☐

Application
Content
Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Ramona Hovey – Agent of 3Bear Field Service

Print or Type Name

July 25, 2019

Date

(512) 600-1777

Phone Number

ramona@lonquist.com

e-mail Address

Signature

Ramona K Hovey

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

July 29, 2019

New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division District IV
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
(505) 476-3440

RE: BEAR PAW SWD NO. 1 AUTHORIZATION TO INJECT

To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for 3Bear Field Service, LLC's ("3Bear") Bear Paw SWD No. 1. In addition, Form C-102 has also been included with this package. Notices have been sent to offset operators, leaseholders and the surface owner. Proof of notice will be sent to the OCD upon receipt.

Any questions should be directed towards 3Bear Field Services, LLC's agent Lonquist & Co., LLC.


Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: 3Bear Field Services, LLC
ADDRESS: 415 W. Wall St., Suite 1212
CONTACT PARTY: Mike Solomon PHONE: 720-202-2824
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Ramona Hovey TITLE: Consulting Engineer – Agent for 3Bear Field Service
SIGNATURE:  DATE: 7/25/2019
E-MAIL ADDRESS: ramona@lonquist.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: 3Bear Field Services, LLC

WELL NAME & NUMBER: Bear Paw SWD No. 1

WELL LOCATION: 327' FNL & 184' FEL
FOOTAGE LOCATION

A
UNIT LETTER

23
SECTION

21S
TOWNSHIP

33E
RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 26.000"

Casing Size: 20.000"

Cemented with 3,320 sacks.

or ft³

Top of Cement: surface

Method Determined: circulation

Intermediate Casing

Hole Size: 17.500"

Casing Size: 13.325"

Cemented with 4,470 sacks.

or ft³

Production Casing

Hole Size: 12.250"

Casing Size: 9.625"

Cemented with 2,450 sacks.

or ft³

Top of Cement: surface

Method Determined: circulation

Liner

Hole Size: 8.750"

Casing Size: 7.625"

Cemented with 380 sacks.

or ft³

Top of Cement: 11,650'

Method Determined: circulation

Total Depth: 16,500'

Injection Interval

15,835 feet to 16,500 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 20 lb/ft, HCL-80, BTC from 0' – 15,785'

Lining Material: Duoline

Type of Packer: 7-5/8" X 5-1/2" Permanent Packer with High Temperature Elastomer and Full Inconel 925 Trim

Packer Setting Depth: 15,785'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled?

2. Name of the Injection Formation: Devonian, Fusselman,

3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian (Pool Code: 97869)_____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

No, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Bone Spring: 8,850'

Wolfcamp: 11,895'

Strawn: 13,000'

Atoka: 13,230'



3Bear Field Services, LLC

Bear Paw SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Bear Paw SWD
Well No.	1
Location	S-23 T-21S R-33E
Footage Location	327' FNL & 184' FEL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.438"	0.455"	0.395"	0.500"
ID	19.124"	12.415"	8.835"	6.625"
Drift ID	18.936"	12.259"	8.679"	6.500"
COD	21.000"	14.375"	10.625"	7.787"
Weight	94 lb/ft	68 lb/ft	40 lb/ft	39 lb/ft
Grade	J-55 BTC	J-55 BTC	HCL-80 BTC	P-110 TSH Wedge 523
Hole Size	26"	17.5"	12.25"	8.75"
Depth Set	1,800'	5,900'	11,950'	11,650'-15,835'

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	Class C	Class C	Class C	Class H
Lead Cement Volume	2,185 sks	Stage 1: 705 sks	1,260 sks	
Lead Cement Density	13.5 ppg	Stage 1: 11.9 ppg	11.5 ppg	
Tail Cement	Class C	Class C	Class C	Class H
Tail Cement Volume	1,135 sks	Stage 1: 525 sks Stage 2: 3,240 sks	1,190 sks	380 sks
Tail Cement Density	14.8 ppg	Stage 1: 14.8 ppg Stage 2: 11.9 ppg	14.8 ppg	14.5 ppg
Total Sacks	3,320 sks	4,470 sks	2,450 sks	380 sks
TOC	Surface	Stage 1: 4,100' Stage 2: Surface	Surface	11,650'
Excess	100%	Stage 1: 100% Stage 2: 200%	50%	10%
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logging

3. Tubing Description

Tubing Information	
OD	5.5"
WT	0.361"
ID	4.778"
Drift ID	4.653"
COD	6.050"
Weight	20 lb/ft
Grade	HCL-80 BTC
Depth Set	0' - 15,785'

Tubing will be lined with Duoline.

4. Packer Description

7-5/8" x 5-1/2" Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

B. Completion Information

1. Injection Formation: Devonian, Fusselman

2. Gross Injection Interval: 15,835' – 16,500'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	8,850'
Wolfcamp	11,895'
Strawn	13,000'
Atoka	13,320'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 20,000 BPD

Maximum Volume: 25,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 2,375 PSI (surface pressure)

Maximum Injection Pressure: 3,167 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Bone Spring and Artesia formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Artesia, Bone Spring, Delaware, Grayburn/San Andreas, Morrow, Pennsylvanian, and Strawn formations.

5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

Devonian Formation Lithology:

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of ooid and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian-Silurian Formation

Formation	Depth
Rustler	1,759'
Top of Salt	2,190'
Capitan Reef	4,290'
Delaware	5,850'
Bone Spring	8,850'
Wolfcamp	11,895'
Strawn	13,000'
Atoka	13,230'
Woodford	15,625'
Devonian	15,825'

B. Underground Sources of Drinking Water

Two (2) water wells exist within 1 mile of the proposed well. Across the region, fresh water wells are usually drilled between 55' and 1,370' in depth. The water wells in this region belong to the Capitan basin. The Rustler is known to exist in this general area and may also be another USDW and will be protected.

IX. Proposed Stimulation Program

No stimulation program planned.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

Attached is a map of the two (2) water wells that exists within one-mile of the well location. Samples from the well are being obtained by Cardinal Laboratories and will be reported to the Oil Conservation Division as soon as a report is received. Water right summaries are attached for all wells.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 97869		³ Pool Name SWD; SILURIAN-DEVONIAN	
⁴ Property Code		⁵ Property Name BEAR PAW SWD			⁶ Well Number 1
⁷ OGRID No. 372603		⁸ Operator Name 3BEAR FIELD SERVICES, LLC			⁹ Elevation 3779'

¹⁰ Surface Location

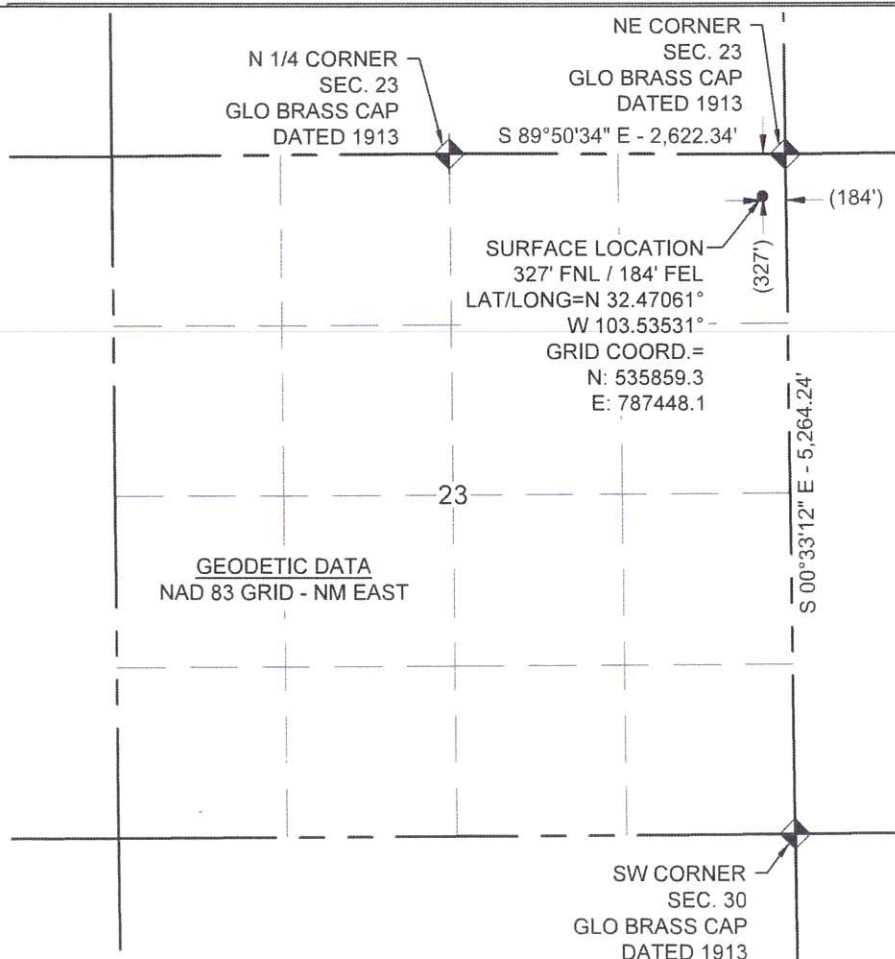
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
NE 1/4	23	21S	33E		327	NORTH	184	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



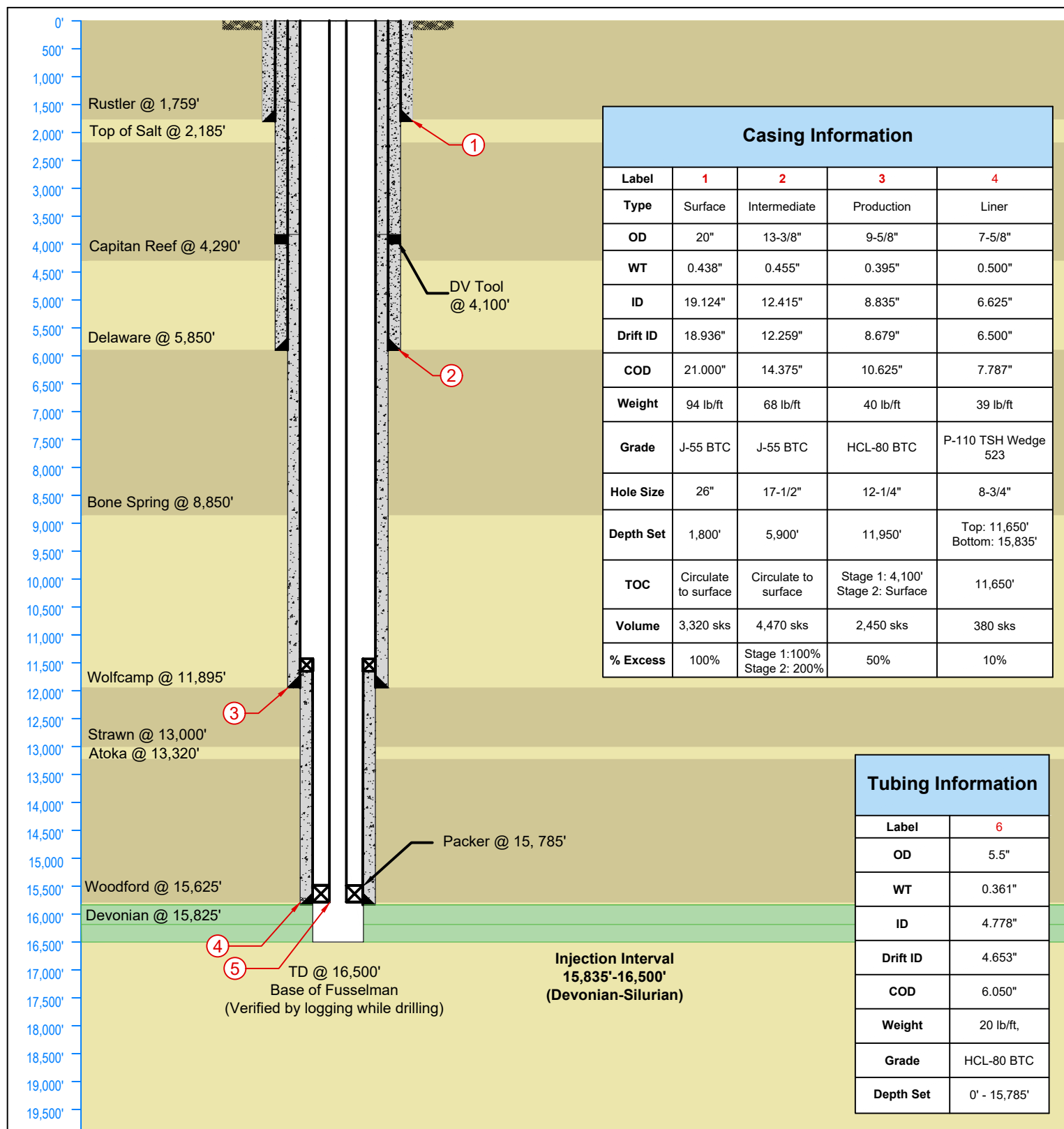
¹⁷ OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Ramona K. Longquist Date: 7/26/19
Printed Name: Ramona Hovey
E-mail Address: ramona@longquist.com

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

SURFACE LOCATION ON: 1/8/19
Date of Survey: 1/8/19
Signature and Seal of Professional Surveyor: Thomas G. Carlson
22896
1-23-19
PROFESSIONAL SURVEYOR

22896
Certificate Number



LONQUIST & CO. LLC PETROLEUM ENGINEERS ENERGY ADVISORS HOUSTON CALGARY AUSTIN WICHITA DENVER	3Bear Field Services, LLC		Bear Paw SWD No. 1	
	Country: USA		State/Province: New Mexico	County/Parish: Lea
	Location:		Site: 327' FNL, 184' FEL	Survey: S23-T21S-R33E
	API No: NA		Field: Devonian-Silurian (Code: 97869)	Well Type/Status: SWD
	Texas License: F-9147		Project No: 1863	Date: 7/18/2019
12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Tel: 512.732.9812 Fax: 512.732.9816	Drawn: TFM		Reviewed: RKH	Approved:
	Rev No: 1		Notes:	

AFFIRMATIVE STATEMENT OF EXAMINATION OF GEOLOGIC AND ENGINEERING DATA

Based on the available engineering, geologic, and seismic data, we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed **Bear Paw SWD #1**) and any underground sources of drinking water.

NAME: Steve Poe

TITLE: Chief Geophysicist

COMPANY: Chisholm Energy Operating, LLC

SIGNATURE:

A handwritten signature in black ink, appearing to read "Steve Poe", written in a cursive style.

Date: 7-18-2019

Bear Paw SWD No. 1
1 Mile Area of Review List

API (30-025-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	DATE DRILLED	FIELD
01780	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	3540	32.4805870000	-103.523880000	11/4/1953	
01781	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	5000	32.4733315000	-103.523567200	8/17/1956	
01782	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	4018	32.4733315000	-103.523887600	3/19/1952	
01783	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	3715	32.4733391000	-103.545318600	10/12/1948	
01788	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	4125	32.4588356000	-103.541061400	7/19/1948	
01790	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	4042	32.4698677000	-103.520683300	9/12/1951	
27501	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	14550	32.4769592000	-103.523880000	8/22/1981	
41377	DATE BTB STATE COM #004H	O	A	EOG RESOURCES INC	11821	32.4859772000	-103.536277800	7/17/2014	[5535] BERRY, BONE SPRING, NORTH
41404	DATE BTB STATE COM #001C	O	C	EOG Y RESOURCES, INC.	0	32.4859924000	-103.549598700	-	[5535] BERRY, BONE SPRING, NORTH
41405	DATE BTB STATE COM #002C	O	C	EOG Y RESOURCES, INC.	0	32.4859848000	-103.544792200	-	[5535] BERRY, BONE SPRING, NORTH
41406	DATE BTB STATE COM #003C	O	C	EOG Y RESOURCES, INC.	0	32.4859810000	-103.541046100	-	[5535] BERRY, BONE SPRING, NORTH
41609	WITHERSPOON 23 STATE #004H	O	A	CIMAREX ENERGY CO.	9633	32.4706001000	-103.536773700	2/19/2014	[5535] BERRY, BONE SPRING, NORTH
41650	NERVOSA BTT STATE COM #002C	O	C	EOG Y RESOURCES, INC.	0	32.4648094000	-103.523574800	-	[5535] BERRY, BONE SPRING, NORTH
41671	DATE BTB STATE COM #008H	O	A	EOG RESOURCES INC	10981	32.4859772000	-103.536827100	7/20/2014	[5535] BERRY, BONE SPRING, NORTH
41753	NERVOSA BTT STATE COM #001	O	P	EOG Y RESOURCES, INC.	235	32.4648132000	-103.519943200	2/27/2015	[5535] BERRY, BONE SPRING, NORTH
41801	PERSIMMON BSS STATE COM #004	O	P	EOG Y RESOURCES, INC.	95	32.4648132000	-103.519615200	6/30/2016	[5535] BERRY, BONE SPRING, NORTH
41917	DATE BTB STATE COM #005C	O	C	EOG Y RESOURCES, INC.	0	32.4859924000	-103.550148000	-	[5535] BERRY, BONE SPRING, NORTH
41971	DATE BTB STATE COM #007C	O	C	EOG Y RESOURCES, INC.	0	32.4859810000	-103.541595500	-	[5535] BERRY, BONE SPRING, NORTH
42229	DATE BTB STATE COM #006C	O	C	EOG Y RESOURCES, INC.	0	32.4859829739	-103.544209624	-	[5535] BERRY, BONE SPRING, NORTH
42418	PERSIMMON BSS STATE COM #001C	O	C	EOG Y RESOURCES, INC.	0	32.4637204910	-103.532489830	-	[5535] BERRY, BONE SPRING, NORTH
42460	NECTARINE BSQ STATE COM #002	O	H	EOG Y RESOURCES, INC.	90	32.4637203560	-103.532164050	6/30/2016	[5535] BERRY, BONE SPRING, NORTH
42542	PERSIMMON BSS STATE COM #002C	O	C	EOG Y RESOURCES, INC.	0	32.4637187616	-103.528515221	-	[5535] BERRY, BONE SPRING, NORTH
42543	PERSIMMON BSS STATE COM #003C	O	C	EOG Y RESOURCES, INC.	0	32.4648070572	-103.523929442	-	[5535] BERRY, BONE SPRING, NORTH
42550	NECTARINE BSQ STATE COM #001C	O	C	EOG Y RESOURCES, INC.	0	32.4637186117	-103.528189434	-	[5535] BERRY, BONE SPRING, NORTH
43291	WITHERSPOON 26 23 STATE #001H	O	A	CIMAREX ENERGY CO.	12241	32.4434580000	-103.549728000	7/9/2016	[98033] WC-025 G-10 S213328O, WOLFCAMP
43600	NERVOSA 24 STATE COM #601H	O	A	EOG RESOURCES INC	11759	32.4648337000	-103.518574600	4/20/2017	[5535] BERRY, BONE SPRING, NORTH
43601	NERVOSA 24 STATE COM #502H	O	N	EOG RESOURCES INC	0	32.4648338000	-103.518688000	-	[5535] BERRY, BONE SPRING, NORTH
43602	NERVOSA 24 STATE COM #503H	O	N	EOG RESOURCES INC	0	32.4653739000	-103.524447000	-	[5535] BERRY, BONE SPRING, NORTH
43603	NERVOSA 24 STATE COM #504H	O	N	EOG RESOURCES INC	0	32.4653738000	-103.524560500	-	[5535] BERRY, BONE SPRING, NORTH
43793	NECTARINE 13 STATE COM #501H	O	A	EOG RESOURCES INC	10886	32.4854143000	-103.532702400	5/12/2017	[5535] BERRY, BONE SPRING, NORTH
44072	DATE 14 STATE COM #602H	O	N	EOG RESOURCES INC	0	32.4721989000	-103.539127600	-	[5535] BERRY, BONE SPRING, NORTH

CURSORY REPORT

PROSPECT: Bear Paw SWD No. 1

REPORT DATE: 7/24/2019

RECORD DATE: 1/1/1980 – 7/2/2019

COUNTY OF: Lea

STATE OF: New Mexico

DESCRIPTION

NW/4NW/4 of Section 25

T21S-R33E, NMPM

40 acres

DESCRIPTION: The NW/4NW/4 of Section 25, Township 21 South, Range 33 East, NMPM, 40 acres

CURSORY OWNERSHIP

Name of Mineral Owners	Interest	Net Acres	Leasehold and Expiration Date
Tumbler Energy Partners, LLC P.O. Box 50938 Midland, TX 79710	N/A	N/A	APPEARS OPEN
John E. Bosserman P.O. Box 56 Oakley, KS 67748	N/A	N/A	APPEARS OPEN
Ray Westall et ux Karen Westall P.O. Box 4 Loco Hills, NM	N/A	N/A	APPEARS OPEN
Merchant Livestock Company P.O. Box 1105 Eunice, NM 88231	N/A	N/A	APPEARS OPEN
TOTALS FOR MINERAL OWNERSHIP	N/A	N/A	

This Acreage is Subject to the Following Agreements (O/A's, Com. Agmts., Pooling, etc.):

Liens or Encumbrances:

Title Curative Required:

Additional Lands Covered by Lease(s):

Bear Paw SWD No. 1
1 Mile Offset Operators and Lessees List

S/T/R	QQ UNIT LETTER(S)	OPERATOR	MINERAL LESSEE	MINERAL OWNER	SURFACE OWNER	ADDRESS 1	ADDRESS 2
15/21S/33E	P	COG OPERATING LLC	-	-	-	600 W ILLINOIS AVE	MIDLAND, TX 79701
14/21S/33E	A,B,G,H,I,J,O,P	EOG RESOURCES INC	-	-	-	PO BOX 2267	MIDLAND, TX 79702
	C,E,F,K,L,M,N	-	EOG Y RESOURCES INC	-	-	104 S 4TH ST	ARTESIA, NM 88210
13/21S/33E	B,C,D,E,F,G,H,I,J,K,L,M,N,O,P	EOG RESOURCES INC	-	-	-	PO BOX 2267	MIDLAND, TX 79702
24/21S/33E	A,B,C,D,E,F,G,H,I	EOG RESOURCES INC	-	-	-	PO BOX 2267	MIDLAND, TX 79702
	J,K,L,M,N,O,P	-	COG OPERATING LLC	-	-	600 W ILLINOIS AVE	MIDLAND, TX 79701
23/21S/33E	A,H,I,L,M,P	CIMAREX ENERGY CO	-	-	-	600 N. MARIENFELD STREET SUITE 600	MIDLAND, TX 79701
	B,C,D,E,F,G,J,K,N,O	-	CIMAREX ENERGY CO	-	-	600 N. MARIENFELD STREET SUITE 600	MIDLAND, TX 79701
22/21S/33E	A,H	COG OPERATING LLC	-	-	-	600 W ILLINOIS AVE	MIDLAND, TX 79701
26/21S/33E	A,B	COG OPERATING LLC	-	-	-	600 W ILLINOIS AVE	MIDLAND, TX 79701
25/21S/33E	C	-	EOG Y RESOURCES INC	-	-	104 S 4TH ST	ARTESIA, NM 88210
	D	-	-	MERCHANT LIVESTOCK	-	PO BOX 1105	EUNICE, NM 88231
	-			TUMBLER ENERGY PARTNERS, LLC	-	P.O. BOX 50938	MIDLAND, TX 79710
	-			JOHN E. BOSSERMAN	-	P.O. BOX 56	OAKLEY, KS 67748
	-		RAY WESTALL ET US KAREN WESTHALL		-	P.O. BOX 4	LOCO HILLS, NM
Surface Hole Location	-	-	-	STATE OF NEW MEXICO	STATE OF NEW MEXICO	PO BOX 1148	SANTA FE, NM 87504

Bear Paw SWD No. 1: Offsetting Produced Water Analysis																		
Well Name	API	Section	Township	Range	Unit	County	Formation	ph	tds_mgl	sodium_mgl	calcium_mgl	iron_mgl	magnesium_mgl	manganese_mgl	chloride_mgl	bicarbonate_mgl	sulfate_mgl	co2_mgl
WILSON G #001	3002520462	2	21S	34E	T	LEA	ARTESIA		305848						179100	158	7808	
WILSON G #001	3002520462	2	21S	34E	T	LEA	ARTESIA		145214						81910	1095	6570	
STATE BATTERY 4 #040	3002502545	13	21S	34E	N	LEA	ARTESIA		13955						6090	545	2598	
STATE BATTERY 4 #040	3002502545	13	21S	34E	N	LEA	ARTESIA		19597						9292	1151	2293	
STATE BATTERY 4 #040	3002502545	13	21S	34E	N	LEA	ARTESIA		19284						8888	1273	2424	
HUNT APO STATE #001	3002527135	4	21S	34E	T	LEA	BONE SPRING	5.8	294627	98899.7	26316.8	27.37	5157.46		216575	74.018	403.41	
BERRY APN STATE #001	3002527250	5	21S	34E	L	LEA	BONE SPRING	6.2	192871	67071.2	12761.8	96.578	1372.31		132048	162.835	444.708	
BERRY APN STATE #001	3002527250	5	21S	34E	L	LEA	BONE SPRING	7.52	127888	49357.7	2925.18	0.9747	792.756		82783.4	616.227	1390.57	
BERRY APN STATE #001	3002527250	5	21S	34E	L	LEA	BONE SPRING	7.18	128117	49793.4	2715.12	0.216	631.8		82351.1	567	1722.6	
ALPHABET AQR STATE #001	3002521342	17	21S	34E	F	LEA	BONE SPRING	5.96			10581	235	2.2		95978	391	400	
HUNT APO STATE #001	3002527135	4	21S	34E	T	LEA	BONE SPRING	5.17			23095	43	4173		154965	146	350	
MONK 21 STATE COM #001H	3002540986	21	21S	34E	D	Lea	BONE SPRING 2ND SAND	7	261089.1	67168.3	27203.3	39.2	4750.4	5.63	160263.9	122	425	70
MONK 21 STATE #004H	3002542193	21	21S	34E	B	Lea	BONE SPRING 2ND SAND	7	184233.3	54225.2	13340.5	22.8	2309.9	1.98	112774.6	488	425	1300
PENNNYPACKER 17 STATE #001H	3002540681	17	21S	34E	O	Lea	BONE SPRING 2ND SAND	6.6		67843	14246	65	1867	1.8	135000	146	474	726
MONK 21 STATE COM #001H	3002540986	21	21S	34E	D	Lea	BONE SPRING 2ND SAND	6.6		54887	8497	28	1253	0.87	103000	207	439	550
GAUCHO UNIT #010H	3002541183	17	22S	34E	O	Lea	BONE SPRING 3RD SAND	6.8		29047	8190	14	1367	0.41	63000	207	308	176
GAUCHO UNIT #011H	3002541184	17	22S	34E	O	Lea	BONE SPRING 3RD SAND	6.8		32064	8057	15	1472	0.58	67000	183	1309	220
MOBIL LEA STATE #001	3002531696	2	20S	34E	K	LEA	DELAWARE	6.3	152064	51632.2	13149.5	5.525			102148	404.43	690.625	
MOBIL LEA STATE #003	3002532105	2	20S	34E	M	LEA	DELAWARE	5.5	296822	87727.9	45355	8.8125			215237	143.35	293.75	
MOBIL LEA STATE #005	3002532466	2	20S	34E	E	LEA	DELAWARE	5.5	340838	125179	29657	3.67775			245270	229.125	146.875	
EUNICE MONUMENT SOUTH UNIT #620	3002530511	6	21S	36E	R	LEA	GRAYBURG/SAN ANDRES	7.59	13744.8	3848.88	676.359	0.8088	270.948		6544.2	1313.29	1057.51	
EUNICE MONUMENT SOUTH UNIT #639	3002531409	5	21S	36E	Q	LEA	GRAYBURG/SAN ANDRES	7.41	15676.5	4748.3	362.296	109.296	426.052		8807.44	884.488	304.612	
EUNICE MONUMENT SOUTH UNIT #639	3002531409	5	21S	36E	Q	LEA	GRAYBURG/SAN ANDRES	7.29	14661.2	4025.74	899.668	0.8096	260.084		7176.09	1055.52	1249.82	
EUNICE MONUMENT SOUTH UNIT #638	3002531426	5	21S	36E	X	LEA	GRAYBURG/SAN ANDRES	7.53	15965.1	4518.99	830.66	0.9117	304.913		7859.87	1000.84	1451.63	
EUNICE MONUMENT SOUTH UNIT #244	3002504497	5	21S	36E	S	LEA	GRAYBURG/SAN ANDRES	7.9	11164.9	3030.03	555.959	0.3027	216.935		5067.2	1590.18	623.562	
WILSON DEEP UNIT #001	3002520461	13	21S	34E	F	LEA	MORROW		11648						566	2161	5252	
SOUTH WILSON DEEP UN #001	3002520849	23	21S	34E	L	LEA	PENNSYLVANIAN		10316						5991	390	415	
SOUTH WILSON DEEP UN #001	3002520849	23	21S	34E	L	LEA	PENNSYLVANIAN		12800						5252	480	2832	
INCA FEDERAL #012	3002531756	17	18S	32E	E	LEA	WOLFCAMP	6.1	187007	66744.4	10171	10.107	0.5615	2103.38		127936	175.188	970.272



New Mexico Office of the State Engineer

Water Right Summary



[get image list](#)

WR File Number: CP 00766 **Subbasin:** CP **Cross Reference:-**

Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING

Primary Status: DCL DECLARATION

Total Acres: 0 **Subfile:** - **Header:** -

Total Diversion: 3 **Cause/Case:** -

Owner: THE MERCHANT LIVESTOCK CO.

Documents on File



[get images](#)

Trn #	Doc	File/Act	Status	From/To	Acres	Diversion	Consumptive
547993	DCL	1991-08-05	DCL PRC CP 00766	T	0	3	

Current Points of Diversion

POD Number	Well Tag	Source	Q Q Q	Sec	Tws	Rng	X	Y	Other Location Desc
CP 00766 POD1		Shallow	64	16	4	3 2 13 21S 33E	638698	3594668*	

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	Source
03/13/1961	DCL	0	3	CP 00766 POD1	Shallow

Place of Use

Q Q Q Q	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256 64 16 4				0	3		PLS	03/13/1961	DCL	NO PLACE OF USE GIVEN

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	3		PLS	03/13/1961	GW



New Mexico Office of the State Engineer


Water Right Summary




[get image list](#)

WR File Number: CP 00765 **Subbasin:** CP **Cross Reference:-**
Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING
Primary Status: DCL DECLARATION
Total Acres: 0 **Subfile:** - **Header:** -
Total Diversion: 3 **Cause/Case:** -
Owner: THE MERCHANT LIVESTOCK CO.

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
 get images	547976	DCL	1991-08-05	DCL	PRC	CP 00765	T	0	3	

Current Points of Diversion

POD Number	Well Tag	Source	Q Q Q			(NAD83 UTM in meters)		X	Y	Other Location Desc
			64	16	4	Sec	Tws	Rng		
CP 00765 POD1		Shallow	3	2	13	21S	33E	638698	3594668*	

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number	Source
11/01/1953	DCL	0	3	CP 00765 POD1	Shallow

Place of Use

Q Q Q Q			Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64	16										
						0	3		PLS	11/01/1953	DCL	NO PLACE OF USE GIVEN

Source

Acres	Diversion	CU	Use	Priority	Source Description
0	3		PLS	11/01/1953	GW

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
July 18, 2019
and ending with the issue dated
July 18, 2019.



Publisher

Sworn and subscribed to before me this
18th day of July 2019.



Business Manager

My commission expires

January 29, 2023

(Seal)



OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico

My Commission Expires 1-29-23

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE JULY 18, 2019

3Bear Field Services LLC, 415 W. Wall St., Suite 1212, Midland, Texas 79701, is filling Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for administrative approval for its salt water disposal well Bear Paw SWD No. 1. The proposed well will be located at 327' FNL & 184' FEL in Section 23, Township 21S, Range 33E in Lea County, New Mexico. Disposal water will be sourced from area production, and will be injected into the Devonian-Silurian Formation (determined by offset log analysis) through an open hole completion between an applied for top of 15,542' feet to a maximum depth of 17,342' feet. The maximum surface injection pressure will not exceed 3,109 psi with a maximum rate of 25,000 BWP. Interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. Additional information can be obtained from the applicant's agent, Lonquist & Co., LLC, at (512) 600-1777. #34451

67112661

00230938

LONQUIST & CO., LLC
12912 HILL COUNTRY BLVD, STE F200
AUSTIN, TX 78738

DETERMINATION AND NOTICE OF AFFECTED PARTIES – NEW MEXICO

If an operator or mineral lessee has legal acreage or leases within one mile of the proposed salt water disposal well, their contact information is collected for notification purposes. Legal acreage of offset operators is gathered from the New Mexico Oil Conservation District's Permitting website. Minerals leased from the federal government are determined by referencing the Bureau of Land Management's Land and Mineral System Reports database. Minerals leased from the state government are determined by referencing the New Mexico State Land Office's Data Access database. Contact information for the affected parties is then extracted from the reports that were filed with the appropriate regulatory agency. Should any private minerals that are not public information fall within the one-mile radius, a title search was performed to discover the current lessee of those minerals or identifying the mineral owner of the acreage.

Notices were sent for the Bear Paw SWD No. 1 application by mailing them a copy of Form C-108 on 7/29/2019. The individual tracking numbers are attached in the following pages of this application. Receipt of each application will be monitored and presented to the Oil Conservation Division upon request.



Tyler Moehlman
Petroleum Engineer

Project: 3Bear Field Services, LLC
Bear Paw SWD No. 1

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

List of Affected Parties - Bear Paw SWD No. 1					
3Bear Field Services, LLC					
AFFECTED PARTY	ADDRESS LINE 1	ADDRESS LINE 2	TRACKING #	DATE SHIPPED	DATE RECEIVED
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND, TX 79701	9314869904300061614011	7/29/2019	
CIMAREX ENERGY CO	600 N. MARIENFELD STREET SUITE 600	MIDLAND, TX 79701	9314869904300061614028	7/29/2019	
EOG RESOURCES INC	PO BOX 2267	MIDLAND, TX 79702	9314869904300061614035	7/29/2019	
EOG Y RESOURCES INC	104 S 4TH ST	ARTESIA, NM 88210	9314869904300061614042	7/29/2019	
JOHN E. BOSSERMAN	P.O. BOX 56	OAKLEY, KS 67748	9314869904300061614059	7/29/2019	
MERCHANT LIVESTOCK	PO BOX 1105	EUNICE, NM 88231	9314869904300061614066	7/29/2019	
RAY WESTALL ET US KAREN WESTHALL	P.O. BOX 4	LOCO HILLS, NM	9314869904300061614073	7/29/2019	
STATE OF NEW MEXICO	PO BOX 1148	SANTA FE, NM 87504	9314869904300061614080	7/29/2019	
TUMBLER ENERGY PARTNERS, LLC	P.O. BOX 50938	MIDLAND, TX 79710	9314869904300061614097	7/29/2019	

July 29, 2019

COG OPERATING LLC
600 W ILLINOIS AVE
MIDLAND, TX 79701

Subject: Bear Paw SWD No. 1 Authorization to Inject

To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for 3Bear Field Service, LLC's ("3Bear") Bear Paw SWD No. 1 well. Section XIV of Form C-108 requires that the surface land owner on which the well is located and each leasehold operator within a one-half mile radius of the proposed well location be furnished with the application. The notice of application has been extended to a one-mile radius.

According to the New Mexico Oil Conservation Division, surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date in which this application was mailed to them.

Any questions should be directed towards 3Bear Field Service, LLC's agent, Lonquist & Co., LLC.

Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

July 29, 2019

CIMAREX ENERGY CO
600 N. MARIENFELD STREET SUITE 600
MIDLAND, TX 79701

Subject: Bear Paw SWD No. 1 Authorization to Inject

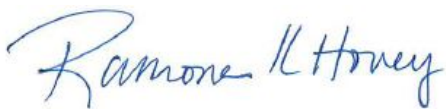
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Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

LONQUIST & CO. LLC

AUSTIN
HOUSTON

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

WICHITA
CALGARY

www.lonquist.com

July 29, 2019

EOG RESOURCES INC
PO BOX 2267
MIDLAND, TX 79702

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July 29, 2019

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104 S 4TH ST
ARTESIA, NM 88210

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July 29, 2019

JOHN E. BOSSERMAN
P.O. BOX 56
OAKLEY, KS 67748

Subject: Bear Paw SWD No. 1 Authorization to Inject

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July 29, 2019

MERCHANT LIVESTOCK
PO BOX 1105
EUNICE, NM 88231

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July 29, 2019

RAY WESTALL ET US
KAREN WESTHALL
P.O. BOX 4
LOCO HILLS, NM 88255

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Any questions should be directed towards 3Bear Field Service, LLC's agent, Lonquist & Co., LLC.

Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

July 29, 2019

STATE OF NEW MEXICO
PO BOX 1148
SANTA FE, NM 87504

Subject: Bear Paw SWD No. 1 Authorization to Inject

To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for 3Bear Field Service, LLC's ("3Bear") Bear Paw SWD No. 1 well. Section XIV of Form C-108 requires that the surface land owner on which the well is located and each leasehold operator within a one-half mile radius of the proposed well location be furnished with the application. The notice of application has been extended to a one-mile radius.

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Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

July 29, 2019

TUMBLER ENERGY PARTNERS, LLC
P.O. BOX 50938
MIDLAND, TX 79710

Subject: Bear Paw SWD No. 1 Authorization to Inject


To Whom It May Concern:

Attached for your review is Form C-108, Application for Authorization to Inject, and its supplemental documents prepared for 3Bear Field Service, LLC's ("3Bear") Bear Paw SWD No. 1 well. Section XIV of Form C-108 requires that the surface land owner on which the well is located and each leasehold operator within a one-half mile radius of the proposed well location be furnished with the application. The notice of application has been extended to a one-mile radius.

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Any questions should be directed towards 3Bear Field Service, LLC's agent, Lonquist & Co., LLC.

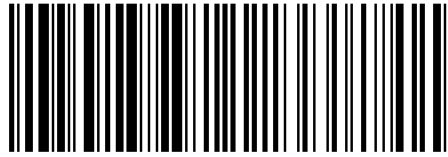
Regards,



Ramona K. Hovey
Sr. Petroleum Engineer
Lonquist & Co., LLC

(512) 600-1777
ramona@lonquist.com

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 11

RETURN RECEIPT (ELECTRONIC)

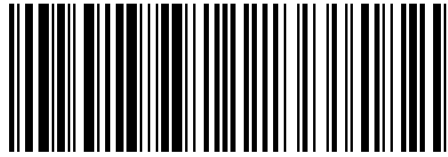


Total Postage: \$6.55

COG OPERATING LLC
600 W ILLINOIS AVE
MIDLAND, TX 79701

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 28

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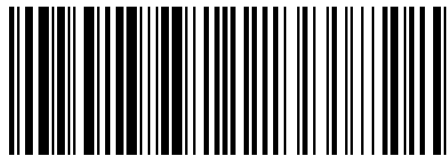


Total Postage: \$6.55

CIMAREX ENERGY CO
600 N. MARIENFELD ST, STE 600
MIDLAND, TX 79701

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 35

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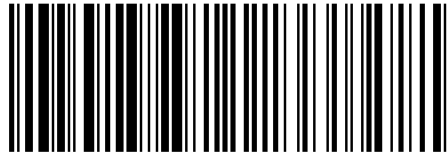


Total Postage: \$6.55

EOG RESOURCES INC
PO BOX 2267
MIDLAND, TX 79702

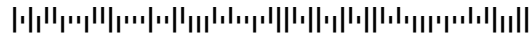
Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 42

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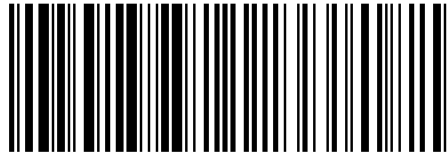


Total Postage: \$6.55

EOG Y RESOURCES INC
104 S 4TH ST
ARTESIA, NM 88210

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 59

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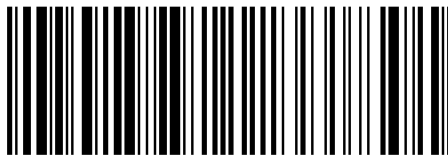


Total Postage: \$6.55

JOHN E. BOSSERMAN
P.O. BOX 56
OAKLEY, KS 67748

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 66

RETURN RECEIPT (ELECTRONIC)

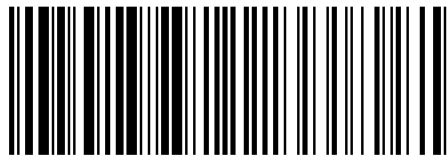


Total Postage: \$6.55

MERCHANT LIVESTOCK
PO BOX 1105
EUNICE, NM 88231

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 73

RETURN RECEIPT (ELECTRONIC)

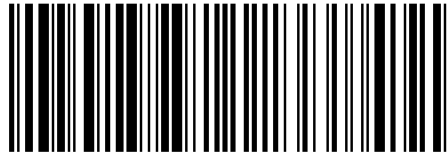


Total Postage: \$6.55

RAY WESTALL ET US
KAREN WESTHALL
P.O. BOX 4
LOCO HILLS, NM 88255

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 80

RETURN RECEIPT (ELECTRONIC)

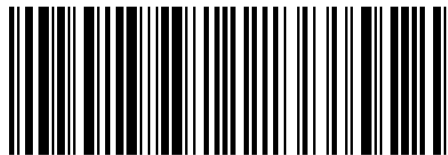


Total Postage: \$6.55

STATE OF NEW MEXICO
PO BOX 1148
SANTA FE, NM 87504

Reference Number: 1863-BEAR PAW SWD #1

Chris Weyand
Lonquist & CO LLC
1001 McKinney Street
Ste 1650
Houston, TX 77002



9314 8699 0430 0061 6140 97

RETURN RECEIPT (ELECTRONIC)




Total Postage: \$6.55

TUMBLER ENERGY PARTNERS, LLC
P.O. BOX 50938
MIDLAND, TX 79710

Reference Number: 1863-BEAR PAW SWD #1

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ X Disposal _____ Storage
Application qualifies for administrative approval? _____ X Yes _____ No
- II. OPERATOR: 3Bear Field Services, LLC
ADDRESS: 415 W. Wall St., Suite 1212
CONTACT PARTY: Mike Solomon PHONE: 720-202-2824
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes _____ X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Ramona Hovey TITLE: Consulting Engineer – Agent for 3Bear Field Service
SIGNATURE:  DATE: 7/25/2019
E-MAIL ADDRESS: ramona@lonquist.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: 3Bear Field Services, LLC

WELL NAME & NUMBER: Bear Paw SWD No. 1

WELL LOCATION: 327' FNL & 184' FEL
FOOTAGE LOCATION

A
UNIT LETTER

23
SECTION

21S
TOWNSHIP

33E
RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 26.000"

Casing Size: 20.000"

Cemented with 3,320 sacks.

or ft³

Top of Cement: surface

Method Determined: circulation

Intermediate Casing

Hole Size: 17.500"

Casing Size: 13.325"

Cemented with 4,470 sacks.

or ft³

Production Casing

Hole Size: 12.250"

Casing Size: 9.625"

Cemented with 2,450 sacks.

or ft³

Top of Cement: surface

Method Determined: circulation

Liner

Hole Size: 8.750"

Casing Size: 7.625"

Cemented with 380 sacks.

or ft³

Top of Cement: 11,650'

Method Determined: circulation

Total Depth: 16,500'

Injection Interval

15,835 feet to 16,500 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 5.5", 20 lb/ft, HCL-80, BTC from 0' – 15,785'

Lining Material: Duoline

Type of Packer: 7-5/8" X 5-1/2" Permanent Packer with High Temperature Elastomer and Full Inconel 925 Trim

Packer Setting Depth: 15,785'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled?

2. Name of the Injection Formation: Devonian, Fusselman,

3. Name of Field or Pool (if applicable): SWD; Devonian-Silurian (Pool Code: 97869)_____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

No, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Bone Spring: 8,850'

Wolfcamp: 11,895'

Strawn: 13,000'

Atoka: 13,230'

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

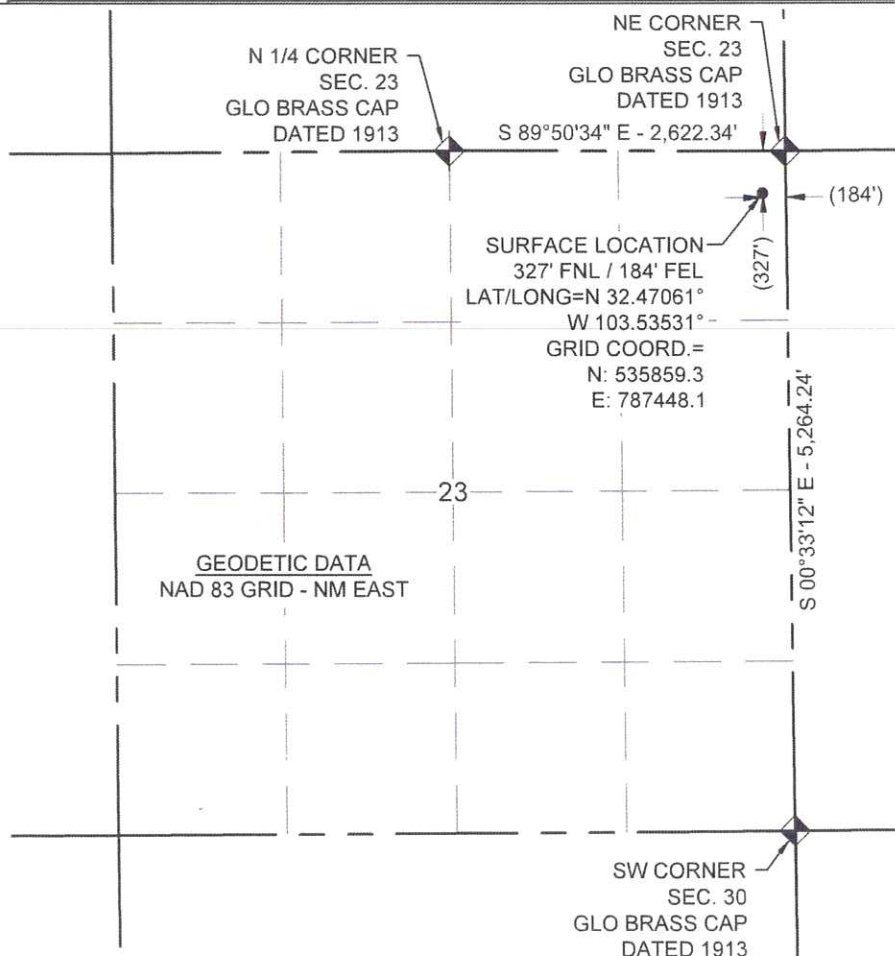
¹ API Number		² Pool Code 97869		³ Pool Name SWD; SILURIAN-DEVONIAN	
⁴ Property Code		⁵ Property Name BEAR PAW SWD			⁶ Well Number 1
⁷ OGRID No. 372603		⁸ Operator Name 3BEAR FIELD SERVICES, LLC			⁹ Elevation 3779'

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
NE 1/4	23	21S	33E		327	NORTH	184	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷ OPERATOR CERTIFICATION

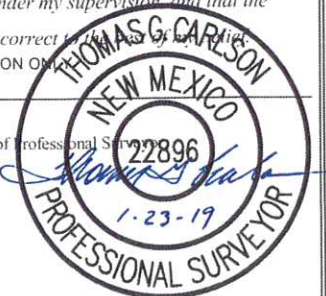
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

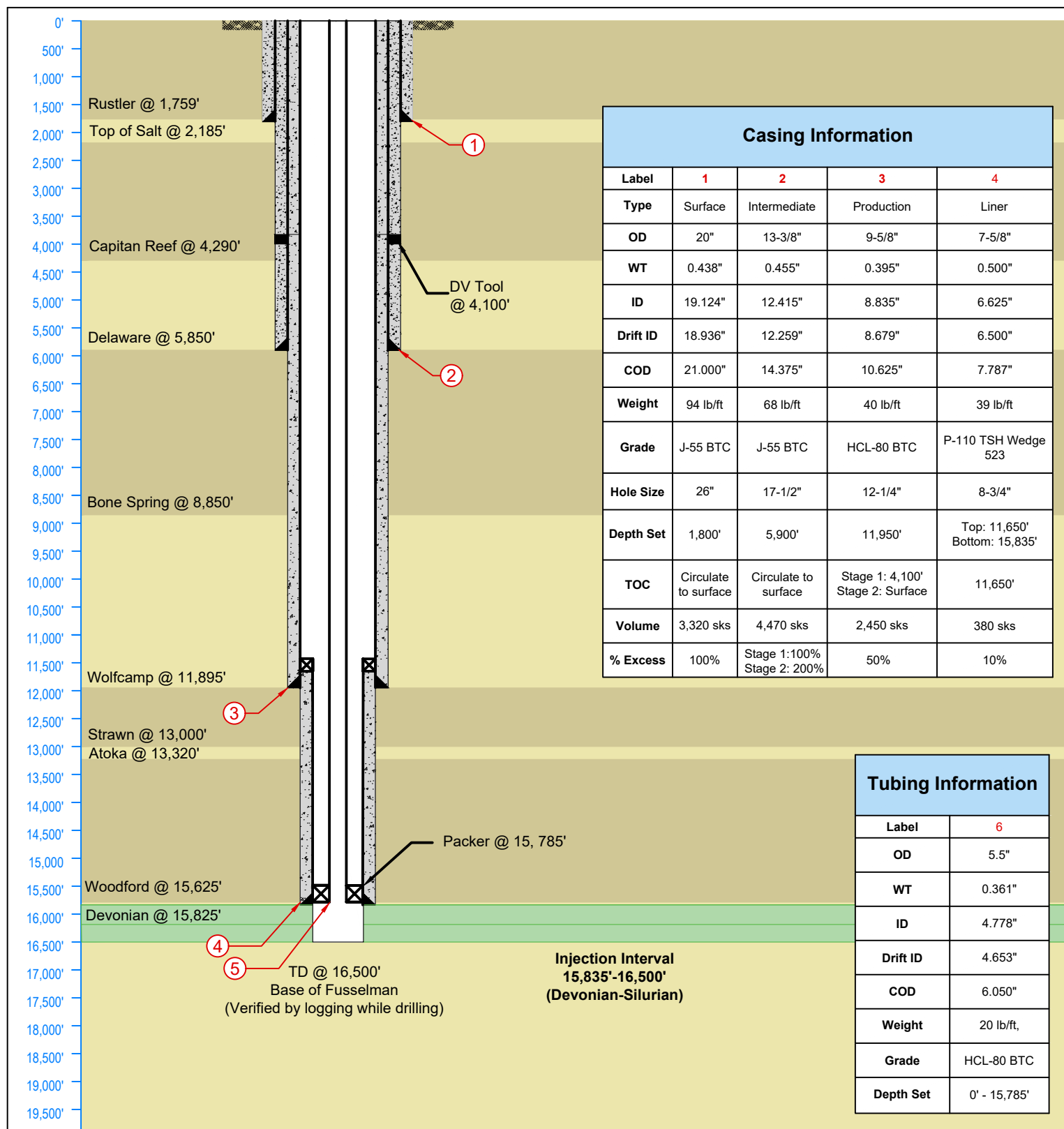
Signature: *Ramona K. Longquist* Date: 7/26/19
Printed Name: RAMONA HOVER
E-mail Address: ramona@longquist.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

SURFACE LOCATION ON: 1/8/19
Date of Survey: 1/8/19
Signature and Seal of Professional Surveyor: *Thomas G. Carlson*
22896
Certificate Number: 22896





<div>LONQUIST & CO. LLC</div> <div><div>PETROLEUM ENGINEERS</div><div>ENERGY ADVISORS</div></div> <div><div>HOUSTON CALGARY</div><div>AUSTIN WICHITA DENVER</div></div>	3Bear Field Services, LLC		Bear Paw SWD No. 1	
	Country: USA		State/Province: New Mexico	County/Parish: Lea
	Location:		Site: 327' FNL, 184' FEL	Survey: S23-T21S-R33E
	API No: NA		Field: Devonian-Silurian (Code: 97869)	Well Type/Status: SWD
	Texas License F-9147		Project No: 1863	Date: 7/18/2019
12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Tel: 512.732.9812 Fax: 512.732.9816	NMOCD District No: 1		Approved:	
	Drawn: TFM		Reviewed: RKH	
	Rev No: 1		Notes:	

DETERMINATION AND NOTICE OF AFFECTED PARTIES – NEW MEXICO

If an operator or mineral lessee has legal acreage or leases within one mile of the proposed salt water disposal well, their contact information is collected for notification purposes. Legal acreage of offset operators is gathered from the New Mexico Oil Conservation District's Permitting website. Minerals leased from the federal government are determined by referencing the Bureau of Land Management's Land and Mineral System Reports database. Minerals leased from the state government are determined by referencing the New Mexico State Land Office's Data Access database. Contact information for the affected parties is then extracted from the reports that were filed with the appropriate regulatory agency. Should any private minerals that are not public information fall within the one-mile radius, a title search was performed to discover the current lessee of those minerals or identifying the mineral owner of the acreage.

Notices were sent for the Bear Paw SWD No. 1 application by mailing them a copy of Form C-108 on 7/29/2019. The individual tracking numbers are attached in the following pages of this application. Receipt of each application will be monitored and presented to the Oil Conservation Division upon request.



Tyler Moehlman
Petroleum Engineer

Project: 3Bear Field Services, LLC
Bear Paw SWD No. 1

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS

ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

List of Affected Parties - Bear Paw SWD No. 1					
3Bear Field Services, LLC					
AFFECTED PARTY	ADDRESS LINE 1	ADDRESS LINE 2	TRACKING #	DATE SHIPPED	DATE RECEIVED
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND, TX 79701	9314869904300061614011	7/29/2019	
CIMAREX ENERGY CO	600 N. MARIENFELD STREET SUITE 600	MIDLAND, TX 79701	9314869904300061614028	7/29/2019	
EOG RESOURCES INC	PO BOX 2267	MIDLAND, TX 79702	9314869904300061614035	7/29/2019	
EOG Y RESOURCES INC	104 S 4TH ST	ARTESIA, NM 88210	9314869904300061614042	7/29/2019	
JOHN E. BOSSERMAN	P.O. BOX 56	OAKLEY, KS 67748	9314869904300061614059	7/29/2019	
MERCHANT LIVESTOCK	PO BOX 1105	EUNICE, NM 88231	9314869904300061614066	7/29/2019	
RAY WESTALL ET US KAREN WESTHALL	P.O. BOX 4	LOCO HILLS, NM	9314869904300061614073	7/29/2019	
STATE OF NEW MEXICO	PO BOX 1148	SANTA FE, NM 87504	9314869904300061614080	7/29/2019	
TUMBLER ENERGY PARTNERS, LLC	P.O. BOX 50938	MIDLAND, TX 79710	9314869904300061614097	7/29/2019	

AFFIRMATIVE STATEMENT OF EXAMINATION OF GEOLOGIC AND ENGINEERING DATA

Based on the available engineering, geologic, and seismic data, we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed **Bear Paw SWD #1**) and any underground sources of drinking water.

NAME: Steve Poe

TITLE: Chief Geophysicist

COMPANY: Chisholm Energy Operating, LLC

SIGNATURE:

A handwritten signature in black ink, appearing to read "Steve Poe", written in a cursive style.

Date: 7-18-2019



3Bear Field Services, LLC

Bear Paw SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Bear Paw SWD
Well No.	1
Location	S-23 T-21S R-33E
Footage Location	327' FNL & 184' FEL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.438"	0.455"	0.395"	0.500"
ID	19.124"	12.415"	8.835"	6.625"
Drift ID	18.936"	12.259"	8.679"	6.500"
COD	21.000"	14.375"	10.625"	7.787"
Weight	94 lb/ft	68 lb/ft	40 lb/ft	39 lb/ft
Grade	J-55 BTC	J-55 BTC	HCL-80 BTC	P-110 TSH Wedge 523
Hole Size	26"	17.5"	12.25"	8.75"
Depth Set	1,800'	5,900'	11,950'	11,650'-15,835'

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	Class C	Class C	Class C	Class H
Lead Cement Volume	2,185 sks	Stage 1: 705 sks	1,260 sks	
Lead Cement Density	13.5 ppg	Stage 1: 11.9 ppg	11.5 ppg	
Tail Cement	Class C	Class C	Class C	Class H
Tail Cement Volume	1,135 sks	Stage 1: 525 sks Stage 2: 3,240 sks	1,190 sks	380 sks
Tail Cement Density	14.8 ppg	Stage 1: 14.8 ppg Stage 2: 11.9 ppg	14.8 ppg	14.5 ppg
Total Sacks	3,320 sks	4,470 sks	2,450 sks	380 sks
TOC	Surface	Stage 1: 4,100' Stage 2: Surface	Surface	11,650'
Excess	100%	Stage 1: 100% Stage 2: 200%	50%	10%
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logging

3. Tubing Description

Tubing Information	
OD	5.5"
WT	0.361"
ID	4.778"
Drift ID	4.653"
COD	6.050"
Weight	20 lb/ft
Grade	HCL-80 BTC
Depth Set	0' - 15,785'

Tubing will be lined with Duoline.

4. Packer Description

7-5/8" x 5-1/2" Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

B. Completion Information

1. Injection Formation: Devonian, Fusselman

2. Gross Injection Interval: 15,835' – 16,500'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	8,850'
Wolfcamp	11,895'
Strawn	13,000'
Atoka	13,320'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 20,000 BPD

Maximum Volume: 25,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 2,375 PSI (surface pressure)

Maximum Injection Pressure: 3,167 PSI (surface pressure)

4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Bone Spring and Artesia formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Artesia, Bone Spring, Delaware, Grayburn/San Andreas, Morrow, Pennsylvanian, and Strawn formations.

5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

Devonian Formation Lithology:

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

Fusselman Formation Lithology:

The Silurian/Ordovician Fusselman Formation is stratigraphically below the Wristen Group and is above and separated from the Montoya Formation by the Sylvan Shale. The Sylvan Shale is the lower confining layer for the proposed well. Fusselman facies include a laminated skeletal wackestone in the upper part and a buildup complex in the lower part composed of ooid and bryozoan grainstones. These grainstones can also be potentially prolific zones for disposal.

A. Injection Zone: Devonian-Silurian Formation

Formation	Depth
Rustler	1,759'
Top of Salt	2,190'
Capitan Reef	4,290'
Delaware	5,850'
Bone Spring	8,850'
Wolfcamp	11,895'
Strawn	13,000'
Atoka	13,230'
Woodford	15,625'
Devonian	15,825'

B. Underground Sources of Drinking Water

Two (2) water wells exist within 1 mile of the proposed well. Across the region, fresh water wells are usually drilled between 55' and 1,370' in depth. The water wells in this region belong to the Capitan basin. The Rustler is known to exist in this general area and may also be another USDW and will be protected.

IX. Proposed Stimulation Program

No stimulation program planned.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

Attached is a map of the two (2) water wells that exists within one-mile of the well location. Samples from the well are being obtained by Cardinal Laboratories and will be reported to the Oil Conservation Division as soon as a report is received. Water right summaries are attached for all wells.